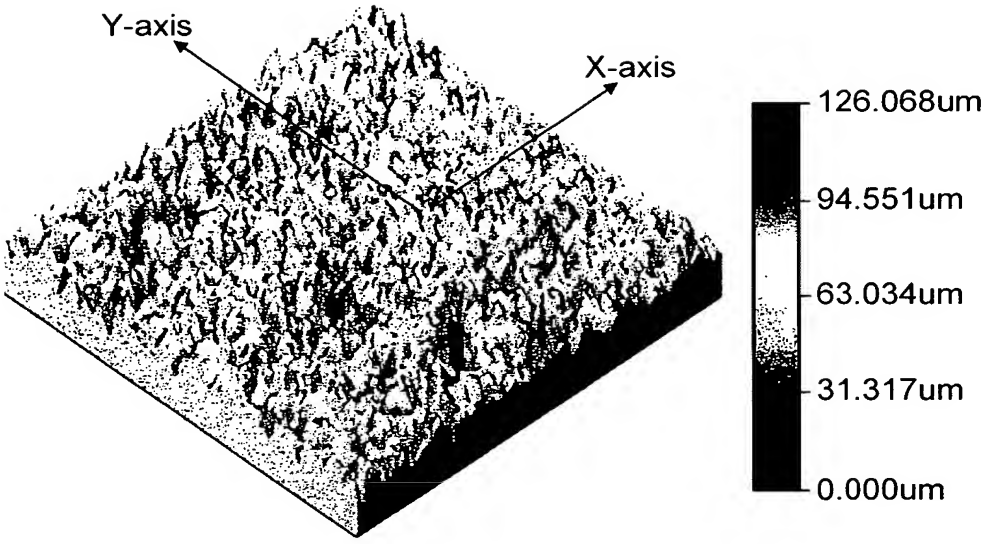

AMPLITUDE PARAMETERS

Root-mean-square deviation of the surface	Sq (μm)	6.742
Skewness of Topography height distribution	Ssk	-0.324
Kurtosis of Topography height distribution	Sku	3.382
Highest Peak from the mean surface	Sp (μm)	34.506
Lowest Valley from the mean surface	Sv (μm)	-39.858
Height between the lowest and highest points	Sz (μm)	74.364

SPATIAL PARAMETERS

Density of summits of the surface	Sds (1/mm)	1.621e+003
Texture aspect ratio of the surface	Str	0.770
Fastest decay autocorrelation length	Sal (mm)	0.069
Texture direction of the surface	Std (degree)	*

HYBRID PARAMETERS

Root-mean-square of the surface	Sdq	0.775
Average summit curvature of the surface	Ssc (1/μm)	0.261
Developed surface area ratio	Sdr (%)	20.366

FUNCTIONAL PARAMETERS

Surface bearing index (5%)	Sbi	0.279
Core fluid retention index (5-80%)	Sci	1.405
Valley fluid retention index (80%)	Svi	0.132
Peak material volume of the surface (10.0%)	Vmp ($\mu m^3/mm^2$)	2.805e+005
Core material volume of the surface (10.0-80.0%)	Vmc ($\mu m^3/mm^2$)	5.982e+006
Core void volume of the surface (10.0-80.0%)	Vvc ($\mu m^3/mm^2$)	7.524e+006
Valley void volume of the surface (80.0%)	Vvv ($\mu m^3/mm^2$)	8.860e+005

FIG. 1

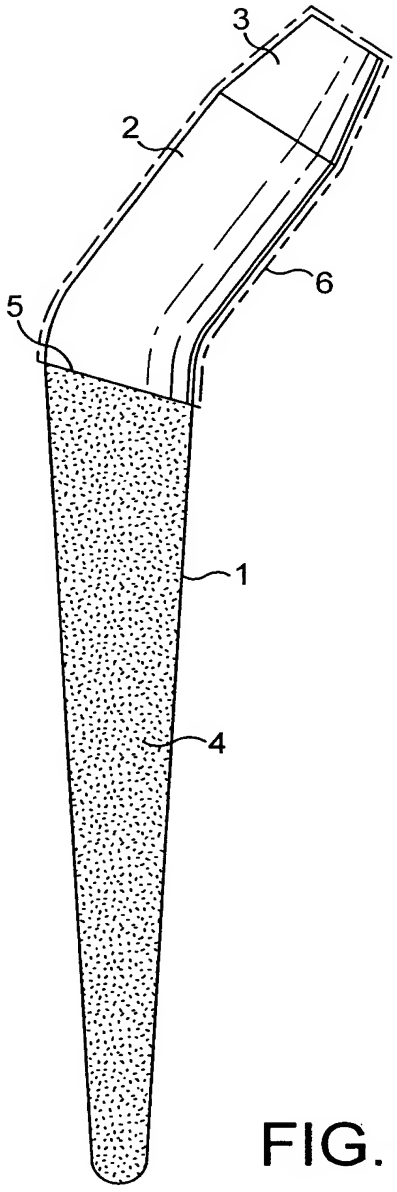

FIG. 2

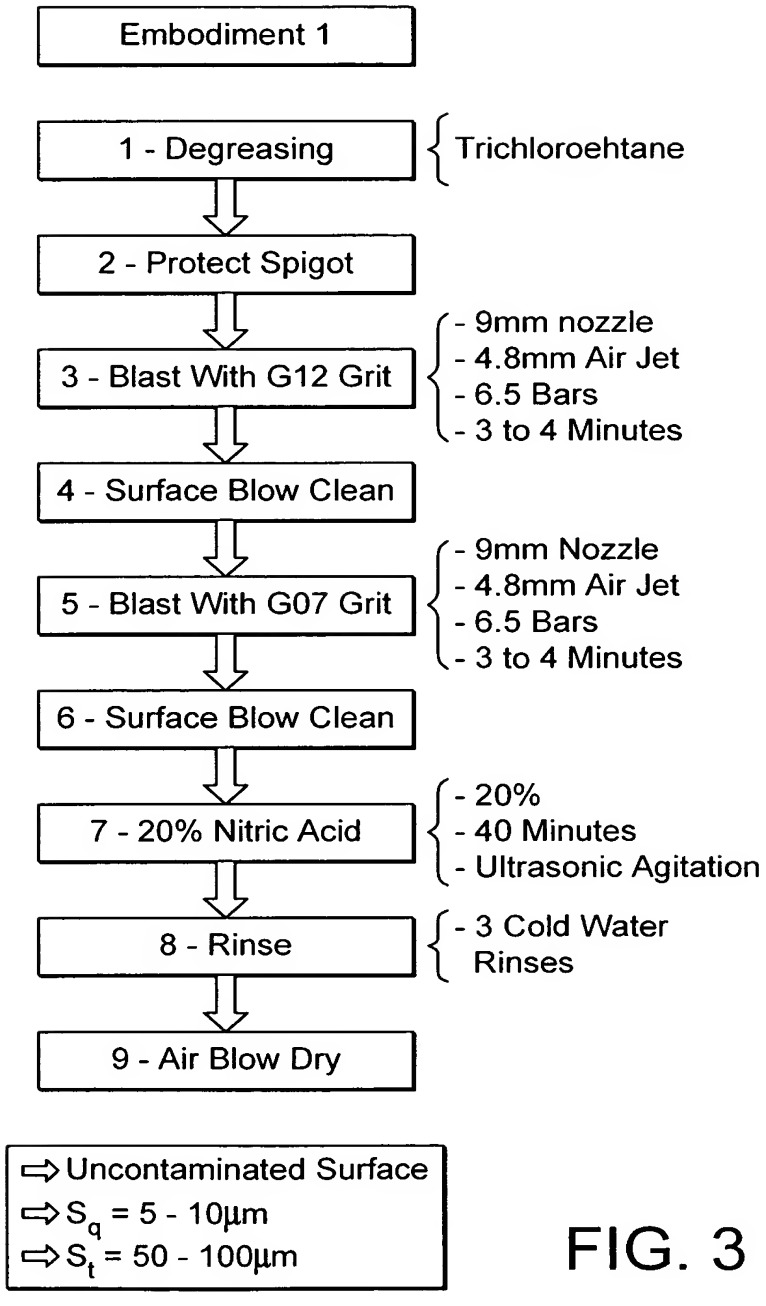
Embodiment 1
1 - Degreasing
Trichloroehtane
2 - Protect Spigot
3 - Blast With G12 Grit
- 9mm nozzle
- 4.8mm Air Jet
- 6.5 Bars
- 3 to 4 Minutes
4 - Surface Blow Clean
5 - Blast With G07 Grit
- 9mm Nozzle
- 4.8mm Air Jet
- 6.5 Bars
- 3 to 4 Minutes
6 - Surface Blow Clean
7 - 20% Nitric Acid
- 20%
- 40 Minutes
- Ultrasonic Agitation
8 - Rinse
- 3 Cold Water Rinses
9 - Air Blow Dry
⇨ Uncontaminated Surface
⇨ S_q = 5 - 10µm
⇨ S_t = 50 - 100µm

FIG. 3

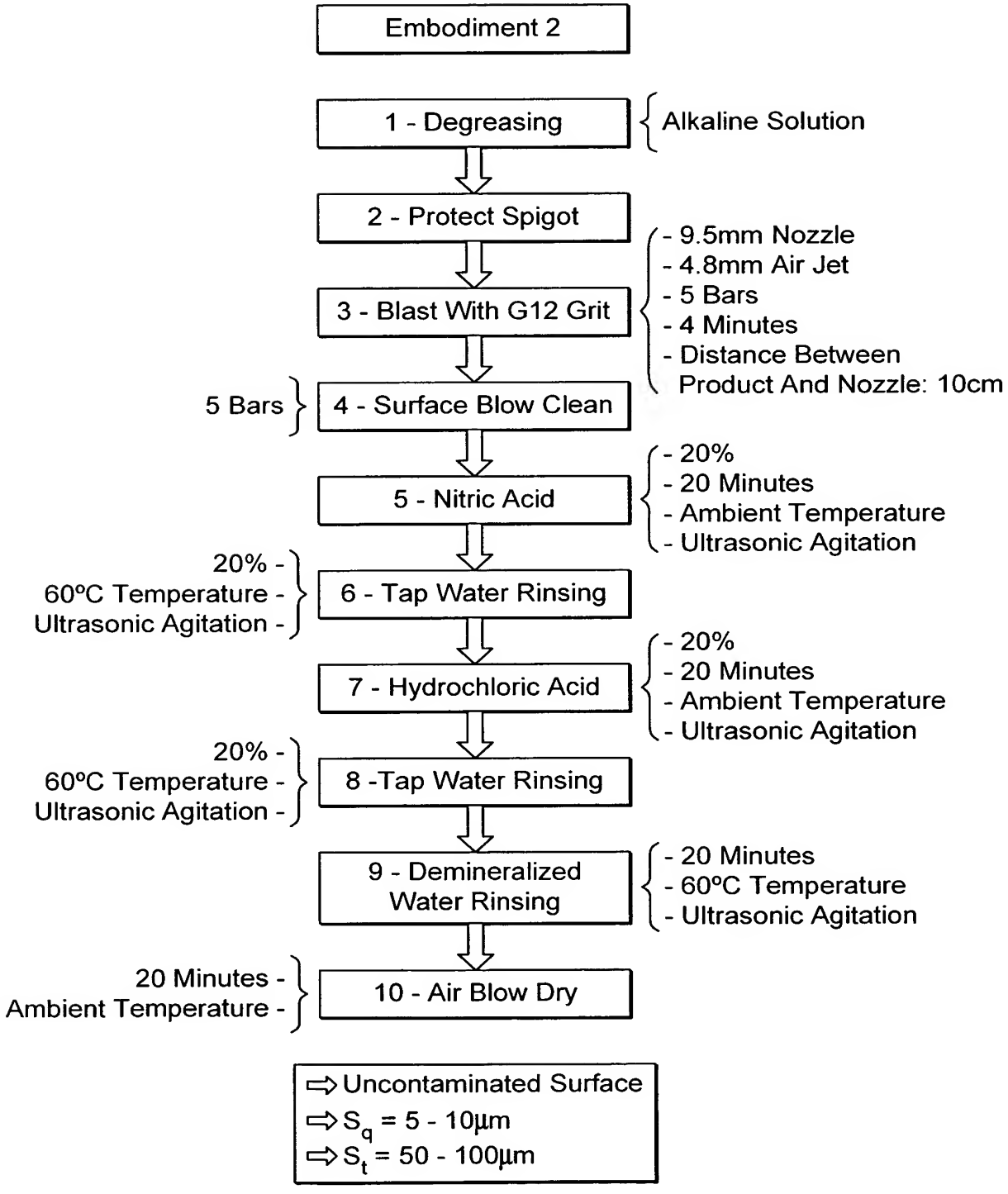
Embodiment 2
1 - Degreasing
Alkaline Solution
2 - Protect Spigot
3 - Blast With G12 Grit
- 9.5mm Nozzle
- 4.8mm Air Jet
- 5 Bars
- 4 Minutes
- Distance Between Product And Nozzle: 10cm
5 Bars
4 - Surface Blow Clean
5 - Nitric Acid
- 20%
- 20 Minutes
- Ambient Temperature
- Ultrasonic Agitation
20% -
60°C Temperature -
Ultrasonic Agitation -
6 - Tap Water Rinsing
7 - Hydrochloric Acid
- 20%
- 20 Minutes
- Ambient Temperature
- Ultrasonic Agitation
20% -
60°C Temperature -
Ultrasonic Agitation -
8 -Tap Water Rinsing
9 - Demineralized Water Rinsing
- 20 Minutes
- 60°C Temperature
- Ultrasonic Agitation
20 Minutes -
Ambient Temperature -
10 - Air Blow Dry
⇨ Uncontaminated Surface
⇨ S_q = 5 - 10µm
⇨ S_t = 50 - 100µm

FIG. 4

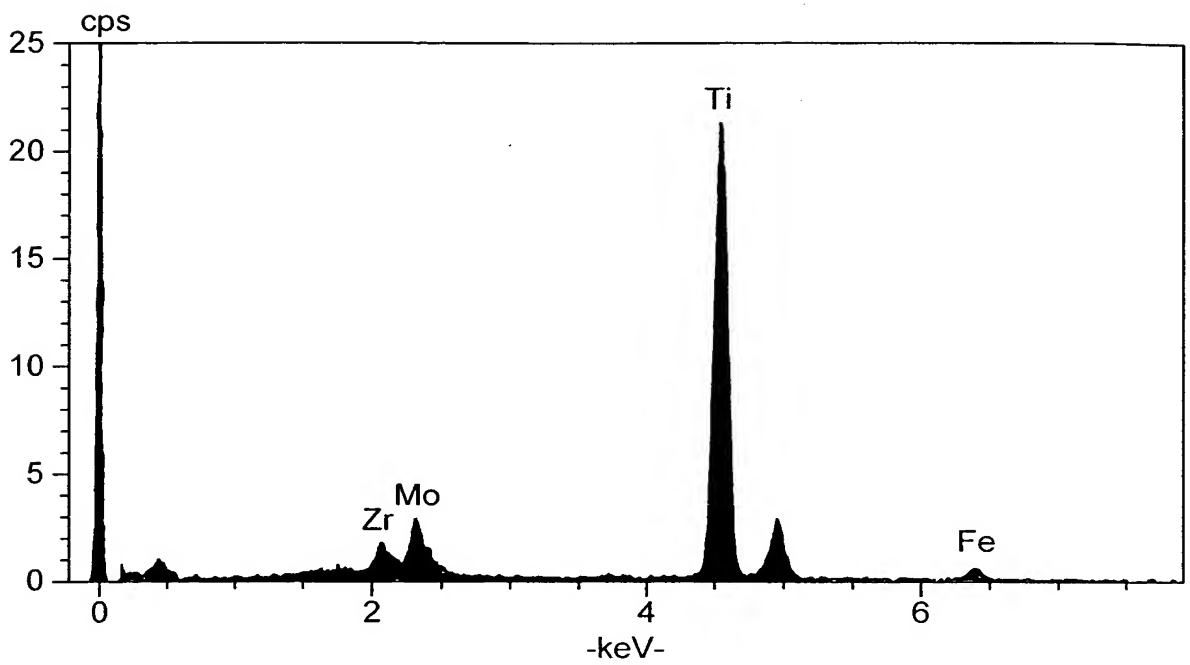
cps
25
20
15
10
5
0
Ti
Zr
Mo
Fe
0
2
4
6
-keV-

FIG. 5

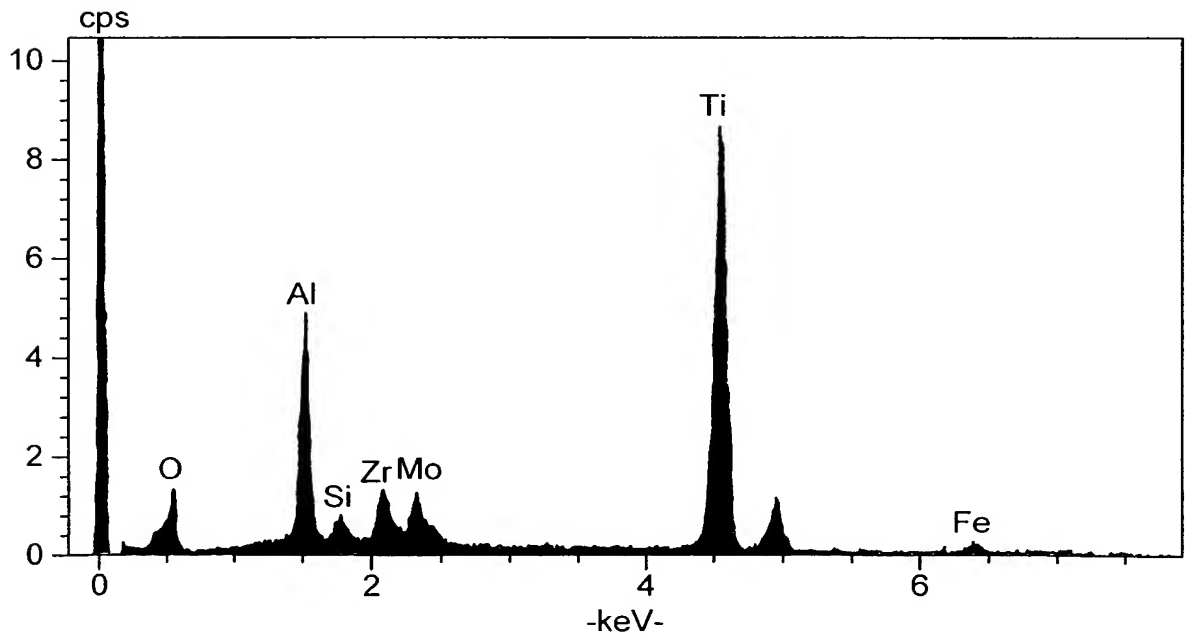
cps
10
8
6
4
2
0
Ti
Al
O
Si
Zr
Mo
Fe
0
2
4
6
-keV-

FIG. 6